

The Examiner rejected claims 13-17 contending that the language of claims 13 and 17 is not supported in the specification. The Applicant intends this language to refer to the embodiment of the invention depicted in Fig. 4 wherein first and second body plies 332 and 334 are disposed on opposite sides of bead portion 336. The Applicant thus respectfully requests that the § 112 rejection be withdrawn given the support in the specification in Fig. 4.

The Examiner rejected claim 23 contending that the language "high modulus low hysteresis material" is indefinite. The Applicant submits that those skilled in the art of runflat tires understand the range of materials that may be used for sidewall inserts but has canceled the claim in the spirit of compact prosecution.

The Applicant has amended claims 28-30 so that the proper antecedent basis is provided for each element recited in the claims.

The Examiner rejected claims 1, 7-11, and 17 as being anticipated by U.S. Patent 6,044,844 to Peda. The Applicant respectfully traverses the rejection. The Peda reference fails to disclose, teach, or suggest a runflat tire. The term runflat refers to tires that have self supporting sidewalls so that the tire does not collapse in an uninflated or zero pressure position. The Peda reference discloses a tire that is designed to collapse on itself as depicted in Fig. 2 to help prevent the bead rings from unseeding from the rim during a zero pressure condition. The Peda reference thus fails to disclose, teach, or suggest a runflat tire having a cantilevered sidewall portion.

Independent claim 1 has been amended to recite that the sidewall insert is disposed axially inwardly of the body ply of the sidewall with the sidewall insert being adapted to support the sidewall in a runflat operating condition. The Peda reference fails to disclose, teach, or suggest these limitations. The Applicant submits that independent claim 1 is patentable over the reference.

Claim 9 has been amended to be in independent form. Claim 9 recites limitations similar to independent claim 1 and additionally recites that the bead portion includes an axially outer end disposed adjacent the radially inner end of the

sidewall insert. The Peda reference fails to disclose, teach, or suggest these limitations and claim 9 is submitted to be patentable over the art.

Claim 17 has been amended to be in independent form. The Peda reference fails to disclose, teach, or suggest a tire having first and second body plies wherein the bead portion includes a bead filler disposed between the first and second body plies and the cantilever portion of the sidewall. The Applicant thus submits that claim 17 is patentable over the Peda reference.

The Examiner rejected claims 1, 7-11, 17, and 21-23 as being obvious in view of the combination of U.S. Patent 3,631,913 and U.S. Patent 5,769,980. The Applicant respectfully traverses the rejections. The Applicant respectfully traverses the contention that Boileau discloses a cantilever tire construction. The '913 reference to Boileau discloses a tire sidewall construction that allows the tire to take advantage of a rigid tread portion without sacrificing the comfort of the tire. The sidewall of the '913 patent achieves this objective by moving the sidewall breaking point radially inwardly by providing a break point 18 or a turnup portion disposed at approximately one-third the height of the tire sidewall. These structures are designed to allow the tire sidewall to flex below this point to maintain the comfort of the tire while using a relatively stiff tread. The Examiner contends that it would be obvious to one of ordinary skill in the art to use a sidewall insert such as the one disclosed in U.S. Patent 5,769,980 to Spragg in the Boileau tire to provide a cantilever tire that runs in an under inflated or uninflated condition. The Applicant respectfully traverses this contention noting that there is no reason why one of ordinary skill in the art would be led to modify the sidewall of Boileau to provide a sidewall insert such as Spragg. The Spragg sidewall insert prevents the tire sidewall from flexing so that it does not collapse in an under inflated or uninflated condition. The Boileau reference teaches that the sidewall should flex at the location below the break point of the sidewall. One of ordinary skill in the art would not be led to add a sidewall insert to the Boileau reference because it would defeat the purpose of the Boileau reference by increasing the stiffness of the entire sidewall. The inclusion of a sidewall insert such as Spragg's in the Boileau

reference would defeat the purpose of the Boileau reference. There is thus no motivation for one of ordinary skill in the art to make the combination presented by the Examiner. The Applicant thus submits that independent claim 1 is patentable over the combination of Boileau and Spragg. Independent claim 9 recites that the bead portion includes an axially outer end disposed adjacent the radially inner end of the sidewall insert. The Applicant submits that there is no reason why one of ordinary skill in the art would present such a bead portion and sidewall insert arrangement in the Boileau reference because such overlapping ends would defeat the purpose of the Boileau reference by preventing its sidewall from flexing in the desired location. Independent claim 17 has been amended to recite that the tire includes first and second body plies with the bead portion including a bead filler disposed between the first and second plies in the cantilever portion of the sidewall. The Boileau and Spragg references fail to disclose, teach, or suggest this arrangement.

★ The Examiner rejected claims 1, 7, 8, and 12-17 as being obvious in view of U.S. Patent 5,871,602 to Paonessa in combination with Boileau. The Applicant respectfully traverses the rejection. As explained above, there is no motivation for one of ordinary skill in the art to add a runflat sidewall insert to the Boileau reference because the inclusion of such an insert would defeat the purpose of the invention disclosed in the Boileau reference.

The Applicant has added new claims 32 and 33 and respectfully request that they be examined. Both of these claims read on the elected species because independent claim 32 recites that the bead portion includes a bead filler having a portion disposed in the cantilever portion of the sidewall. Independent claim 32 further recites that the bead filler includes an axially outer end that overlaps the position of at least a portion of the sidewall insert. There is no disclosure, teaching, or suggestion in any single reference or any combination of references to provide a cantilever tire having a sidewall insert and a bead filler that overlap in the manner recited in this claim.

The remaining rejections are obviated by the allowability of the independent claims. No further response with respect to these rejections is believed necessary at this time.

In view of the foregoing, the Applicant respectfully requests reconsideration of the claims. The Applicant submits that independent claim 1 remains generic and that the withdrawing claims should be re-entered in the prosecution based on the allowance of independent claim 1. The Applicant thus most earnestly solicits the issuance of a formal Notice of Allowability for claims 1-22 and 24-33.

If any issues remain after this amendment, the undersigned attorney would welcome a telephone call.

Respectfully submitted at Canton, Ohio this 5th day of March, 2002.

SAND & SEBOLT

A handwritten signature in black ink, appearing to read 'Fred H. Zollinger, III', with a stylized flourish at the end.

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CERTIFICATE OF MAILING

I hereby certify that this correspondence (Amendment A in response to the office action dated December 5, 2001, in application serial no. 09/607,070 filed June 29, 2000) is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents,
Washington, DC 20231, on
this 5th day of March, 2002.



Vicki L. Hartzell

Amended Claims With Markings to Show Amendment

1. (Once amended) A runflat tire having an axis of rotation, the tire comprising:
- a pair of axially-spaced bead portions; each having a bead core;
 - a pair of axially-spaced sidewalls;
 - at least one body ply;
 - each of the sidewalls including a sidewall insert disposed axially inwardly of the body ply; the sidewall insert being adapted to support the sidewall in a runflat operating condition; and
 - each of the sidewalls having a radial portion and a cantilever portion, the cantilever portion being cantilevered with respect to the bead [portion] core.

9. (Once amended) [The tire of claim 8, wherein] A runflat tire having an axis of rotation, the tire comprising:

- a pair of axially-spaced bead portions; each having a bead core;
- a pair of axially-spaced sidewalls;
- at least one body ply;
- each of the sidewalls including a sidewall insert disposed inwardly of the body ply; the sidewall insert being adapted to support the sidewall in a runflat operating condition;
- each of the sidewalls having a radial portion and a cantilever portion, the cantilever portion being cantilevered with respect to the bead core; and
- each of the bead portions including an axially outer end disposed adjacent the radially inner end of the sidewall insert.

10. (Once amended) The tire of claim 9, wherein the cantilever portion is disposed at an angle in the range of +30 degrees to -30 degrees with respect to the axis of rotation of the tire, as measured along a reference line that is tangent to the body ply in the cantilever portion of the sidewall.

12. (Once amended) [The tire of claim 7, wherein] A runflat tire having an axis of rotation, the tire comprising:

a pair of axially-spaced bead portions; each having a bead core;

a pair of axially-spaced sidewalls;

a first body ply and a second body ply;

each of the sidewalls including a sidewall insert adapted to support the sidewall in a runflat operating condition;

each of the sidewalls having a radial portion and a cantilever portion, the cantilever portion being cantilevered with respect to the bead core;

the cantilever portion of the sidewall including a portion of the bead portion;

and

the bead portion [includes] including a radially outer end disposed adjacent the radially outer end of the sidewall insert.

13. (Once amended) The tire of claim 12, [further comprising first and second body plies;] wherein the bead portion [being] is disposed between the first and second body plies.

17. (Once amended) [The tire of claim 7, wherein] A runflat tire having an axis of rotation, the tire comprising:

a pair of axially-spaced bead portions; each having a bead core;

a pair of axially-spaced sidewalls;

a first body ply and a second body ply;

each of the sidewalls including a sidewall insert adapted to support the sidewall in a runflat operating condition;

each of the sidewalls having a radial portion and a cantilever portion, the cantilever portion being cantilevered with respect to the bead core;

the cantilever portion of the sidewall including a portion of the bead portion;

the bead portion [includes] including a bead [core and a bead] filler; and [the tire further comprising first and second body plies;] the bead filler being disposed between the first and second body plies in the cantilever portion of the sidewall.

28. (Once amended) The tire of claim [27] 24, wherein the stiffener ring is disposed inside the body [cords] ply.

29. (Once amended) The tire of claim [27] 24, wherein the stiffener ring is disposed outside the body [cords] ply.

30. (Once amended) The tire of claim [27] 24, wherein the [belt package] body ply includes [at least two layers] a main portion and a turned up portion; the stiffener ring being disposed between the [layers of the belt package] main portion and the turned up portion of the body ply.